**Introduction**

The bog garden was designed to filter the recirculating water within the WMT river system with the aim of, in conjunction with a greater water flow rate in the river, preventing the growth of single cell algae which has blighted the system for some years.

**What the public are being told**

***WELCOME TO OUR NEW BOG GARDEN FEATURE***

*SO WHAT’S A BOG GARDEN?*

*A Bog Garden is where that plants are happiest when their roots are in very wet soil live. In the wild these plants would grow in marshes or at the side of rivers, ponds or lakes.*

*WHY DO WE HAVE ONE?*

*As well as being a place where we can grow different sorts of plants, it’s a great facility to filter water naturally. The real River Allen is a chalk stream and is naturally clean because it comes ready filtered from a spring. Our river has a gently sloping channel through which the water flowed with the help of a pump, the water flow has been slow and the water became murky.*

*WHY DO WE WANT TO FILTER THE WATER?*

*Dirty water doesn’t look or smell too nice. Single cell algae grows best in slow moving, nutrient rich water where it forms a dense slimy mass. Cleaning up the algae from the river is unpleasant. Our river has suffered from persistent algae growth over the years.*

*HOW DOES THE BOG GARDEN CLEAN THE WATER?*

*MECHANICALLY - The water flows into the bog garden through two perforated pipes and out into the gravel. The gravel traps any particles and lets clean water flow through.*

*BIOLOGICALLY - The muck in the water comes from leaves, vegetable matter and from resident and visiting wildlife; look out for our frogs and newts! The bog plants and tiny organisms and insects that co-exist with them feed and digest the residue cleaning the water at the same time.*

*WHAT ABOUT PLANS FOR THE FUTURE?*

*We want to collect as much rainwater as we can from the roofs of our buildings and use that to top up the river and to water the lovely garden here at the Model Town.*

**Requirements**

Primary

Maintain a water flow in the river system at all times; sufficient to ensure water clarity and inhibit algae growth (link between slow moving / stagnant water and algae growth is made in literature but it is conjecture that it is the cause of WMT’s river system’s problem).

Reduce the dependence of the river system on mains water.

Enhance WMT as a visitor attraction.

Secondary

Provide a source of harvested rain water that can be used to irrigate the gardens. In the past irrigation was by spraying with hosepipes, it is now planned to also introduce soaker hoses into some of the planting areas.

Expand rain water harvesting, storage and irrigation feeds to suit needs of river / gardens.

Stored water “balancing” between storage sites.